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09/914,371	04/20/2004	Eric Allamanche	SCHO0064	3894
22862	7590	06/08/2006	EXAMINER	
GLENN PATENT GROUP 3475 EDISON WAY, SUITE L MENLO PARK, CA 94025			TO, BAOTRAN N	
			ART UNIT	PAPER NUMBER
			2135	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/914,371

Applicant(s)

ALLAMANCHE ET AL.

Examiner

Bao Tran N. To

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10, 20, 25-27 and 32 is/are allowed.
- 6) ☒ Claim(s) 11-19, 21-24, 28-31, 33-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office action responds to the Applicant's Amendment filed on 03/01/2006.  
Claims 11-13, 17, 21-24, 28-31 and 33-36 are amended.  
Claims 1-10, 20, 25-27 and 32 are previously allowed.  
Claims 11- 19, 21-24, 28-31 and 33-36 remain for examination.

### ***Response to Arguments***

2. Applicant's arguments with respect to Claims 11-13, 17, 21-24, 28-31 and 33-36 have been considered but are moot in view of the new ground(s) of rejection with Katta et al. (U.S. Patent 5,636,279).

Applicant argues "Document D1 does not disclose any decryption or encryption."

Examiner respectfully disagrees with this argument. Chen clearly discloses decryption or encryption in figure 2 elements 208 and 212 (col. 5, line 60 through col. 6, line 10).

Applicant argues "Particularly, document D1 does not disclose a partial coder generating scrambled two or more spectral values (second paragraph of claim 11), because document D1 does not perform at all any scrambling of spectral values."

Examiner respectfully disagrees with this contention. Chen explicitly discloses "RLE encoding, etc., can be optimized and their code books trained for input having

certain characteristics such as high spectral values, low spectral values, mixed or alternating spectral values or some other desired/probable feature" (col. 9, lines 25-30).

Applicant argues " Thus, it becomes clear that document D1 does not disclose the decryptor feature and the encryptor feature of Claim 11".

Examiner respectfully disagrees with this argument. Chen expressly discloses "encoded data is received over the channel 210 as input to an entropy decoder 210 which performs a reverse code book look up to convert the encoded output into an approximation of the original quantization output for the input symbol series 200 (col. 5, lines 60-67).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11- 19, 21-24, 28-31 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (U. S. Patent 6,300,888 B1) herein referred to as Chen in view of Katta et al. (U.S. Patent 5,636,279) herein referred to as Katta.

Regarding on Claims 11 and 21, Chen discloses apparatus for generating a second data stream encrypted based on a second key from a first data stream encrypted

based on a first key, wherein said first data stream is an audio signal with a predefined data stream syntax encoded using an encoder with a predefined data stream syntax, wherein said first data stream is encrypted such that two or more quantized spectral values in a frequency band comprising two or more quantized spectral values and having associated code table have been scrambled based on the first key, wherein after the scrambling has been carried out via a plurality of predefined code tables, wherein each code table is provided for the entropy encoding of quantized spectral values in a frequency band and wherein at least one frequency band comprises the two or more quantized spectral value, comprising:

- a partial decoder (decoder) for reversing part of the encoding such that the scrambled two or more spectral value are present (col. 5, lines 60-67 and col. 6, lines 1-5);

- an encryptor for influencing the sequence of the two or more spectral values of the frequency band that has an associated code table based on the second key (code book key 906) (col. 14, lines 5-25);

- a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the partial decoder in order to generate the second data stream encrypted based on the second key, wherein the second data stream has the predefined data stream syntax (col. 6, lines 10-40 and col. 9, lines 5-50).

Chen does not disclose "a decryptor for decrypting the resorted two or more spectral values by reversing the resorting based on the first key."

However, Katta expressly disclose a decryptor for decrypting the resorted two or more spectral values by reversing the resorting based on the first key (Figure 12, col. 11, line 55 through col. 12, line 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include a decryptor for decrypting the resorted two or more spectral values by reversing the resorting based on the first key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Regarding on Claims 12 and 22, Chen discloses apparatus for generating a second data stream encrypted based on a key from a first data stream, wherein said first data stream is an audio signal encoded using an encoder with a predefined data stream syntax, comprising:

a partial decoder (decoder) for reversing part of the encoding such that quantized spectral values of the audio signal are present (Figure 2, col. 5, lines 60-67 and col. 6, lines 1-10);

(code book key 906),

wherein one of a plurality of predefined code tables is associated to the frequency band for the entropy encoding, wherein each code table is provided for an entropy encoding of quantized spectral values in a frequency band and wherein at least one frequency band comprises the two or more quantized spectral values, wherein the

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encryptor is arranged to scramble the quantized spectral values that have the same associated code table (col. 6, lines 55-67 through col. 8, lines 1-40 and col. 14, lines 5-25);

a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the partial decoder in order to generate the data stream encrypted based on the key, wherein the second data stream has the predefined data stream syntax (col. 6, lines 10-40 and col. 9, lines 5-50).

Chen does not disclose "an encryptor for scrambling two or more quantized spectral values in a frequency band comprising two or more spectral values based on the first key."

However, Katta expressly disclose an encryptor for scrambling two or more quantized spectral values in a frequency band comprising two or more spectral values based on the first key (Figure 1, col. 5, lines 25-35 and col. 8, line 50 through col. 10, line 45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include an encryptor for scrambling two or more quantized spectral values in a frequency band comprising two or more spectral values based on the first key. One of ordinary skill in the art would have been motivated to provide a scramble apparatus for effectively controlling an inputted signal including a variable length code (col. 2, lines 15-20 of Katta).

Regarding on Claims 13 and 23, Chen discloses apparatus for generating a decrypted data stream from a first data stream encrypted based on a key, wherein said first data stream is an audio signal with a predefined data stream syntax encoded by using an encoder, wherein said first data stream is encrypted such that at least two or more quantized spectral values in a frequency band have been scrambled based on the first key, wherein a plurality of predefined code tables for an entropy encoding is associated with the frequency band whose quantized spectral values have been scrambled, wherein each code table for the entropy encoding of quantized spectral values is provided in a frequency band and wherein at least one frequency band comprises the two or more quantized spectral values, comprising:

a partial decoder (decoder) for reversing part of the encoding such that the scrambled two or more quantized spectral values are present, wherein the scrambled two or more quantized spectral values belong to the frequency band that has an associated code table (col. 5, lines 60-67 and col. 6, lines 1-5);

a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the step of reversing in order to generate the second data stream with the predefined data stream syntax (col. 6, lines 10-40 and col. 9, lines 5-50).

Chen does not disclose “a decryptor for decrypting the scrambled two or more quantized spectral values by reversing the scrambling based on the key.”

However, Katta expressly disclose a decryptor for decrypting the scrambled two or more quantized spectral values by reversing the scrambling based on the key (Figure 12, col. 11, line 55 through col. 12, line 55).



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include a decryptor for decrypting the scrambled two or more quantized spectral values by reversing the scrambling based on the key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Regarding on Claims 17 and 24, Chen discloses apparatus for generating a decrypted audio signal from an encrypted data stream comprising quantized spectral values of an audio signal being scrambled and afterwards entropy encoded within a frequency band in a uniquely reversible manner, wherein the frequency band is defined that it has an associated code table from a plurality of code tables for the entropy encoding, wherein the encrypted data stream comprises payload information differing from payload information of a non-encrypted data stream and wherein said encrypted data stream comprises a data stream syntax similar to a data stream syntax a non-encrypted data stream, comprising:

a decoder (entropy decoder 202) for decoding input data in order to generate decoded output data, wherein the decoder comprises an entropy decoder for reversing the entropy encoding in order to obtain the scrambled quantized spectral values (col. 5, lines 60-65); and

in order to reverse the uniquely reversible scrambling which has been carried out in an apparatus for generating an encrypted data stream in order to obtain the

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decrypted audio and/or video signal (col. 5, lines 60-67 through col. 6, lines 1-10 and col. 9, lines 35-50).

Chen does not disclose "a decryptor for influencing the scrambled spectral values based on a key."

However, Katta expressly disclose a decryptor for influencing the scrambled spectral values based on a key (Figure 12, col. 11, line 55 through col. 12, line 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include a decryptor for influencing the scrambled spectral values based on a key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Regarding on Claims 28 and 33, Chen discloses apparatus for generating a second data stream encrypted based on a second key from a first data stream encrypted based on a first key, wherein said first data stream is an audio signal with a predefined data stream syntax encoded using an encoder, wherein said first data stream is encoded such that a sequence of code words generated by entropy encoding of quantized spectral values has been scrambled by changing an order of code words based on the first key, comprising:

a partial decoder (decoder) for reversing part of the encoding such that the scrambled sequence of code words is present (col. 5, lines 60-67 and col. 6, lines 1-5).

Chen does not disclose “a decryptor for reversing the resorting based on the first key.”

However, Katta expressly disclose a decryptor for reversing the resorting based on the first key (Figure 12, col. 11, line 55 through col. 12, line 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include a decryptor for reversing the resorting based on the first key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Chen and Katta disclose the limitations of Claims 28 and 33 above. Chen further discloses an encryptor for scrambling the sequence of code words based on the second key (code book key 906) by changing an order of code words (col. 14, lines 5-25);

a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the partial decoder in order to generate the second data stream encrypted based on the second key, wherein the second data stream has the predefined data stream syntax (col. 6, lines 10-40 and col. 9, lines 5-50).

Regarding on Claims 29 and 34, Chen discloses apparatus for generating a second data stream encrypted based on a key from a first data stream, wherein said first data stream is an audio signal with a predefined data stream syntax encoded by using an encoder, comprising

a partial decoder (decoder) for reversing part of the encoding such that a sequence of code words generated by entropy encoding (entropy encoder 208) of quantized spectral values is present (Figure 2, col. 5, lines 60-67 and col. 6, lines 1-10);

(col. 14, lines 5-25);

a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the partial decoder in order to generate the data stream encrypted based on the key, wherein the second data stream has the predefined data stream syntax (col. 6, lines 10-40 and col. 9, lines 5-50).

Chen does not disclose "an encryptor for scrambling two or more quantized spectral values in a frequency band comprising two or more spectral values based on the first key."

However, Katta expressly disclose an encryptor for scrambling the sequence of code words based on the key by changing an order of code words (Figure 1, col. 5, lines 25-35 and col. 8, line 50 through col. 10, line 45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include an encryptor for scrambling the sequence of code words based on the key by changing an order of code words. One of ordinary skill in the art would have been motivated to provide a scramble apparatus for effectively controlling an inputted signal including a variable length code (col. 2, lines 15-20 of Katta).

Regarding on Claims 30 and 35, Chen discloses apparatus for generating a decrypted second data stream from a first data stream encrypted based on a key, wherein said first data stream is an encoded audio signal with a predefined data stream syntax, wherein said first data stream is encrypted such that a sequence of code words generated by entropy encoding spectral values has been scrambled based by changing an order of code words on a first key, comprising:

a partial decoder (decoder) reversing part of the encoding such that the scrambled sequence of code words is present (col. 8, lines 15-65).

Chen does not disclose "a decryptor by reversing the scrambling of the sequence of code words based on the key."

However, Katta expressly disclose a decryptor by reversing the scrambling of the sequence of code words based on the key (Figure 12, col. 11, line 55 through col. 12, line 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Katta's invention with Chen to include a decryptor by reversing the scrambling of the sequence of code words based on the key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Chen and Katta disclose the limitations of Claims 30 and 35 above. Chen further discloses a partial encoder (encoder) for carrying out part of the encoding that has been reversed by the step of reversing in order to generate the second data stream with the

predefined data stream syntax (col. 5, lines 55-67 through col. 6, lines 1-40 and col. 9, lines 35-50).

Regarding on Claims 31 and 36, Chen discloses apparatus for generating a decrypted audio signal from an encrypted data stream comprising a sequence of code words generated by entropy encoding of quantized spectral values scrambled in a uniquely reversible manner by changing an order of the code words wherein the encrypted data stream comprises payload data differing from payload data of a non-encrypted data stream and wherein the encrypted data stream comprises the same data stream syntax similar to a data stream syntax of a non-encrypted data stream, comprising:

a decoder (entropy decoder 202) for decoding input data in order to generate decoded output data (col. 5, lines 60-65); and

in order to reverse the scrambling that has been carried out in an apparatus for generating an encrypted data stream in order to obtain the decrypted audio signal (col. 5, lines 55-67 through col. 6, lines 1-10 and col. 9, lines 35-50).

Chen does not disclose "a decryptor for influencing the scrambled sequence of code words based on a key."

However, Katta expressly disclose a decryptor for influencing the scrambled sequence of code words based on a key (Figure 12, col. 11, line 55 through col. 12, line 55).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Katta's invention with Chen to include a decryptor for influencing the scrambled sequence of code words based on a key. One of ordinary skill in the art would have been motivated to provide a descramble apparatus for restoring a scramble signal to an original signal (col. 2, lines 15-20 of Katta).

Regarding on Claim 14, Chen and Katta disclose the limitations of Claim 11. Chen further discloses wherein said partial decoder has a bit stream demultiplexer, wherein said encoder internal data are the output data from the bit stream demultiplexer (col. 5, lines 60-67 and col. 6, lines 25-40).

Regarding on Claim 15, Chen and Katta disclose the limitations of Claim 14. Chen further discloses wherein said partial decoder further comprises an entropy decoder following the bit stream demultiplexer, wherein said encoder internal data are the output data from the entropy decoder (col. 5, lines 60-67 and col. 6, lines 25-40).

Regarding on Claim 16, Chen and Katta disclose the limitations of Claim 11. Chen further discloses wherein scale factors are influenced apart from the two or more quantized spectral values (col. 11, lines 20-67 and col. 12, lines 1-55).

Regarding on Claim 18, Chen and Katta disclose the limitations of Claim 17. Chen further discloses wherein said decoder further comprises: a plurality of functional

blocks coupled with a bit stream demultiplexer conducting parts of the data stream to the single blocks according to the predefined data stream syntax (col. 5, lines 25-60, col. 6, lines 10-40 and col. 9, lines 5-65).

Regarding on Claim 19, Chen and Katta disclose the limitations of Claim 18. Chen further discloses wherein said decoder further comprises: a synthesis filter bank in order to convert a spectral representation of the audio signal into a timely representation (co. 5, lines 25-60).

***Allowable Subject Matter***

4. Claims 1-10, 25-27 and 32 are allowed.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any




extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BaoTRAN N. To whose telephone number is 571-272-8156. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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05/26/2006

  
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